

7208 ee. 18.

# SYLLABUS

*Preserve  
wrapped*

OF A

COURSE OF LECTURES

ON THE

PHILOSOPHY

OF

NATURAL HISTORY.

By HENRY MOYES, M. D.

This COURSE, which consists of 19 LECTURES, will  
be illustrated and confirmed by EXPERIMENTS,  
where the Subjects may require them.

ADMITTANCE to the whole COURSE, one Guinea.  
to a single LECTURE, two Shillings.

*The Course will commence on Thursday  
4th April at six o'clock at the  
Royal Institution, Regent Square and the  
lectures will be delivered on  
Wednesdays Saturdays & Mondays*

SYLLABUS

OF A

COURSE OF STUDY

PHILOSOPHY

NATURAL HISTORY



SYLLABUS  
OF A  
COURSE OF LECTURES, &c.

---

LECTURE I.

ON THE FORMATION, ANTIQUITY, AND  
PRESENT STATE OF THE TERRA-  
QUEOUS GLOBE.

1. **A** GENERAL VIEW of the STRUCTURE of the UNIVERSE.
2. Of the MOTIONS, MAGNITUDE, and FIGURE, of the EARTH.
3. Of those PHENOMENA of NATURE which demonstrate that the LAND was formed in the bosom of the OCEAN.
4. How the OCEAN might have retired from the LAND which it formed.
5. Of the CONSOLIDATION of EARTHS into ROCKS, &c.
6. Of the ANTIQUITY of the LAND, of PLANTS, of ANIMALS, and of the HUMAN RACE.
7. Of the ADVANTAGES resulting from the FIGURE and PRESENT STATE of the Terraqueous Globe.
8. What would happen were the PRESENT PROPORTION of the Land to the Water ESSENTIALLY ALTERED.

## LECTURE II.

## ON THE ATMOSPHERE IN GENERAL.

1. OF the HEIGHT of the Atmosphere.
2. Of the CIRCULATION of the Atmosphere and its USES in Nature.
3. Of the WEIGHT of the Atmosphere, and of the Theory and Uses of the BAROMETER.
4. Of the DENSITY of the Atmosphere at different Elevations.
5. Of the ELASTICITY of the Atmosphere.
6. Of the RESISTANCE of the Atmosphere.
7. Of the NEVER-CEASING FROST in the superior Regions of the Atmosphere.
8. Of the CHANGES so prevalent in the TEMPERATURE of the Atmosphere, and the Influence of the SEA upon these Alterations.
9. Of the USES of the Atmosphere in the Economy of the Globe.

## LECTURE III.

## ON SOUND, ECHO, MELODY, AND HARMONY.

1. OF the MECHANISM of the EAR, and of the Provisions in that Organ for the Regulation of Sound.

2. Of



2. Of SOUND in general, and how produced.
3. Of the LOUDNESS of Sound at different Distances from the sounding Body.
4. The VELOCITY of Sound, and how employed as a Measure of Distances.
5. Whether AIR be the only MEDIUM through which the Idea of Sound may be excited in the Mind.
6. Of ECHO—some Echoes repeat more Syllables than others—in what Circumstances an Echo may repeat the same Sound.
7. Of FINDING the DISTANCES of Echoing Bodies.
8. Of the WHISPERING GALLERY in St. Paul's Cathedral.
9. Of MUSICAL SOUNDS.
10. Of the DIFFERENT QUALITIES of Musical Sounds.
11. Of CONCORD and DISCORD, and of MUSICAL SYMPATHY.
12. Why Music gives Pleasure to the Human Mind.
13. On the Music of the Ancients.
14. Of the Influence of Music on the Human System.

---

## LECTURE IV.

### ON THE CONSTITUTION OF THE ATMOSPHERE.

- i. OF the CONTENTS of the Atmosphere in general.

2. Of ATMOSPHERICAL AIR free from Admixture,
3. Of the PRODUCTION of Atmospherical Air, and of the Origin of the Atmosphere.
4. A DIGRESSION concerning Fluor Acid Air—Inflammable Air—the Fire-damp, &c.
5. The COMPONENT ELEMENTS of ATMOSPHERICAL AIR explained and illustrated.
6. The USES of Air in Respiration and Combustion.
7. Of SUFFOCATION and of RESUSCITATION from apparent Death.
8. Of the EFFECTS of VITAL AIR on the Colour of the Blood and the Health of the Body.
9. What would happen were the VITAL AIR in the Atmosphere greatly increased.
10. Of the MEANS employed by the Hand of Nature to supply the Atmosphere with Vital Air, and to preserve the whole in a State of Salubrity.

---

## LECTURE V.

### ON THE LAWS AND PHENOMENA OF THE ELECTRICAL FLUID.

1. A General View of the RISE and PROGRESS of ELECTRICAL SCIENCE. .
2. Of the NATURE of the Electrical Fluid, and of its Analogy to Heat.
3. Of POSITIVE and NEGATIVE Electricity.
4. Of the CONDENSATION and RAREFACTION of the Electrical Fluid.
5. Of the CONSTANT TENDENCY of the Electrical  
Fluid

Fluid to a State of REST and a GENERAL EQUILIBRIUM.

6. Of the EFFECTS of POINTS on the Electrical Fluid, and of drawing it from the Atmosphere, the Clouds, &c.

7. Of the ELECTRICAL SHOCK—its Cause and Effects.

8. Of ELECTRICAL FISHES, their History, Phenomena, and the Cause of their Powers.

9. Of ELECTRICAL ATTRACTION and REPULSION, and of the ANALOGY they bear to the Powers of the MAGNET.

---

## LECTURE VI.

### ON LIGHT.

1. OF the MECHANISM of the EYE.

2. Of the MATERIALITY of LIGHT.

3. Of the VELOCITY and SUBTILITY of Light.

4. The CAUSE of TRANSPARENCY, and that of OPACITY.

5. Whether all bodies would be Transparent if illuminated with Light sufficiently strong.

6. Of the CONSTITUTION of Light.

7. Of the THEORY of COLOUR.

8. Of the PRIMARY COLOURS, and of Phenomena resulting from their mutual Unions.

9. Whether the Nature of Light essentially depends upon that of the Body from which it proceeds.

10. Of ELECTRICAL LIGHT, and of the different Methods of making it appear.

## LECTURE VII.

### ON LUMINOUS AND FIERY METEORS.

1. PRELIMINARY OBSERVATIONS relating to the Blue Colour of the Sky, and the Tints that so often adorn the Clouds, especially about the rising and setting of the Sun.
2. Of the HALO.
3. Of the PARHELION, or Mock Sun.
4. Of the RAINBOW.
5. Of the IGNIS FATUUS.
6. Of the STELLA CADENS, or Falling Star.
7. Of the DRACO VOLANS, or Flying Dragon.
8. Of the AURORA BOREALIS, or Northern Morn.

---

## LECTURE VIII.

### ON THUNDER AND LIGHTNING.

1. OF the IDENTITY of LIGHTNING and the ELECTRICAL FLUID.
2. The CAUSES of THUNDER and LIGHTNING explained.
3. Of the MOTIONS and PHENOMENA of LIGHTNING.
4. The RUMBLING NOISE of THUNDER accounted for.
5. The DISTANCE of THUNDER how estimated.
6. Whence



6. Whence it is that the Earth is so seldom struck by Lightning in Proportion to the frequency of Thunder.

7. Of GUARDING BUILDINGS from the Action of LIGHTNING.

8. The most ELIGIBLE SITUATIONS during a THUNDER STORM.

---

---

## LECTURE IX.

### ON WINDS, WHIRLWINDS, HURRICANES, &c.

1. OF WINDS in GENERAL.

2. Of the PERENNIAL of Trade-Wind.

3. Of PERIODICAL Winds, Sea and Land Breezes, Monsoons, &c.

4. Of the HARMATTAN, SIROC, and WIND of the DESERT.

5. Of the VELOCITY of Winds,—their Action in agitating the Ocean, &c.

6. Of VARIABLE or Irregular Winds.

7. Of WHIRLWINDS.

8. Of HURRICANES.

9. Of TORNADOS.

LEC.

## LECTURE X.

### ON AQUEOUS METEORS.

1. OF EVAPORATION.
2. OF WATER SPOUTS.
3. OF CLOUDS.
4. OF MISTS.
5. OF RAIN.
6. OF DEW.
7. OF FROST.
8. OF SNOW.
9. OF HAIL.

---

## LECTURE XI.

### ON SPRINGS, HOT AND COLD BATHS, &c.

1. OF the COMPOSITION of WATER.
2. OF SPRINGS in general.
3. OF PERENNIAL SPRINGS.
4. OF RECIPROCATING SPRINGS.
5. OF INTERMITTING SPRINGS.
6. OF SPOUTING SPRINGS.
7. OF the TEMPERATURE of Springs.
8. OF PETRIFYING SPRINGS, and of the Process of Petrification.
9. OF MINERAL SPRINGS—Their Division—Contents—Uses, &c.

10. Of

10. Of WARM and TEPID BATHS—Their Theory and Effects.

11. Of the COLD BATH, and its EFFECTS on the System.

12. DIRECTIONS relating to Cold-Water Bathing.

---

## LECTURE XII.

### ON RIVERS, LAKES, CATARACTS, AND THE OCEAN.

1. OF RIVERS in general.
2. Of their CHANNELS, WINDINGS, BANKS, &c.
3. The INTENTION of Nature in the JUNCTION of Rivers.
4. Of CATARACTS.
5. Of LAKES.
6. Of the OCEAN—Its Currents—Circulation—Tides—Temperature—Luminous Appearance—Colour—Saltnefs---Depth, &c.
7. Whether the Ocean be increasing or diminishing.

## LECTURE XIII.

### ON THE INTERIOR STRUCTURE OF THE EARTH, EARTHQUAKES, AND BURNING MOUNTAINS.

1. OF the INTERIOR STRUCTURE of the Earth.
2. Of the CENTRAL PARTS of the Earth.
3. A DIGRESSION concerning the RELATIVE DENSITIES of the Earth, Sun, Planets, and Comets.
4. Of BURNING MOUNTAINS in general.
5. Of ÆTNA.
6. Of VESUVIUS.
7. Of HECLA, &c.
8. The CAUSE of Burning Mountains explained and illustrated.
9. Of EARTHQUAKES--Their Phenomena and Cause.
10. An account of the most remarkable Earthquakes from the Commencement of History to the present Time.

---

## LECTURE XIV.

### ON INCOMBUSTIBLE FOSSILS.

1. OF ALKALIS.
2. Of ACIDS.
3. Of NEUTRAL SALTS, particularly that which is used at Table.
4. Of



4. Of EARTHS in general.
5. Of CALCAREOUS EARTH—Of Mortar—Marle—Gypsum, &c.
6. Of MAGNESIA ALBA—Of Talk, Asbestos, Amianthus, &c. Also of Incombustible Paper and Cloth.
7. Of SILICEOUS Earth—Of the Formation of Sand—Of the Composition of Glass, and of some curious Phenomena which Glass exhibits.
8. Of ARGILLACEOUS Earth—Clay—Fuller's Earth—Of Gems, their History, Composition, &c.

---

## LECTURE XV.

### ON COMBUSTIBLE FOSSILS.

1. OF SOLID BITUMENS—Amber, Asphaltum, Jet, and Pitcoal.
2. Of FLUID BITUMENS—Naphtha, Petroleum, &c. &c.
3. Of SULPHUR.
4. Of the DIAMOND.
5. Of PLUMBAGO.
6. Of METALS.
7. Of the TENACITY, DUCTILITY, and MALLEABILITY of Metals.
8. Of the FUSION and ALLAYING of Metals.
9. Of the EFFECTS of Metals on the Animal System, particularly of those of Arsenic and Lead.

## LECTURE XVI.

### ON THE STRUCTURE, DESEASES, AND PRESERVATION OF PLANTS.

1. OF the STRUCTURE of PLANTS.
2. Of the CONTENTS and USES of the VESSELS of PLANTS.
3. Of the PRODUCTION of GUM, OIL, SUGAR, &c.
4. Of the PRODUCTION of WOOD, and of Causes affecting the Qualities of that Substance.
5. Of the Felling of Timber, and of extraneous Bodies in Living Trees.
6. Of the ANALOGY of PLANTS to ANIMALS, and of the Effects produced upon both by the surrounding Media.
7. Of the PERSPIRATION of Plants.
8. Of the ODOURS of Plants.
9. Of the DISEASES of Plants—Their Theory and Prevention.
10. Of FAIRY RINGS—Their Phenomena and Cause.
11. Of the LONGEVITY of TREES.
12. Of the MEANS employed by NATURE for the DISTRIBUTION and PRESERVATION of Plants.
13. Of the GREEN COLOUR so generally diffused in the Vegetable Kingdom.

LEC.

LECTURE XVII.

ON THE FOOD, GROWTH, AND FUNDAMENTAL LAWS OF VEGETABLE BODIES.

1. OF the FOOD of PLANTS.
2. Of MANURES.
3. Of the DIGESTION of Plants.
4. Of VEGETATION.
5. Facts and Observations relating to the MOTIONS and INSTINCTS of Plants.
6. Whether Plants have a Principle of SELF-PRESERVATION.
7. Of the IRRITABILITY of Plants.
8. Of the SLEEP of Plants.
9. Of the USE of Plants in the Economy of Nature.

---

LECTURE XVIII.

ON THE LAWS AND PHENOMENA OF THE ANIMAL ECONOMY.

1. OF the CHARACTERS which distinguish ANIMALS from PLANTS.
2. Of the NERVOUS SYSTEM.
3. Of the SENSES, and their Functions.
4. Of the DIVISION of Animals into Perfect and Imperfect.
5. Of SLEEP, and the Torpor of some Animals in the Winter Season.

6. Of

6. Of DREAMIC—Its Theory, &c.
7. Of ANIMAL HEAT.
8. Of the EFFECTS of CLIMATE and FOOD upon the Dispositions, Diversity, &c. of Animals.
9. Of the PREYING of ANIMALS upon one another.
10. Whether any Species of Animals be extinct.
11. Whether the Laws of the Animal Economy may be altered by culture and the Society of Men.
12. Whether BRUTE ANIMALS be destitute of REASON.

---

## LECTURE XIX.

### ON MAN.

1. WHETHER all MANKIND be originally of ONE Family.
2. Of the DIVERSITY of COLOUR in the Human Race.
3. The CAUSES of this Diversity explained and illustrated.
4. A Comparative View of MAN and OTHER ANIMALS, in regard to APPETITES, PASSIONS, and DESIRES; MEMORY, IMAGINATION, JUDGMENT, and INSTINCT.
5. Of the CHARACTERS by which Man is DISTINGUISHED from other Animals.
6. Of the ASSOCIATING PRINCIPLE, and the INFLUENCE of SOCIETY on the HUMAN MIND.

FINIS.

